

**WHAT IS CLAIMED IS:**

- 1        1. A transgenic, non-human mammal in which the suppression of expression of  
2 an endogenous LKB1 gene can be induced.
- 1        2. The transgenic, non-human mammal of claim 1, wherein the suppression of  
2 expression of the endogenous LKB1 gene is induced by deleting at least a part of the LKB1  
3 gene or a regulatory region thereof.
- 1        3. The transgenic, non-human mammal of claim 1, wherein at least a part of the  
2 LKB1 gene or a regulatory region thereof in the genome of the transgenic mammal is  
3 inserted between a pair of loxP sequences.
- 1        4. The transgenic non-human mammal of claim 1, wherein the mammal is a  
2 rodent.
- 1        5. The transgenic non-human mammal of claim 2, wherein the mammal is a  
2 rodent.
- 1        6. The transgenic non-human mammal of claim 3, wherein the mammal is a  
2 rodent.
- 1        7. The transgenic non-human mammal of claim 4, wherein the rodent is a mouse.
- 1        8. The transgenic non-human mammal of claim 5, wherein the rodent is a mouse.
- 1        9. The transgenic non-human mammal of claim 6, wherein the rodent is a mouse.
- 1        10. A transgenic, non-human mammal wherein the expression of an endogenous  
2 LKB1 gene is inducibly suppressed.
- 1        11. The transgenic, non-human mammal of claim 10, wherein the expression of  
2 the endogenous LKB1 gene is suppressed by a defect in at least a part of the LKB1 gene or a  
3 regulatory region thereof.

1           12. The transgenic, non-human mammal of claim 10, wherein the mammal is a  
2 rodent.

1           13. The transgenic, non-human mammal of claim 11, wherein the mammal is a  
2 rodent.

1           14. The transgenic, non-human mammal of claim 12, wherein the rodent is a  
2 mouse.

1           15. The transgenic, non-human mammal of claim 13, wherein the rodent is a  
2 mouse.

1           16. A transgenic, non-human mammalian cell, in which suppression of the  
2 expression of an LKB1 gene can be induced and wherein the cell can be differentiated into an  
3 individual mammal.

1           17. The cell of claim 16, wherein suppression of the expression of the LKB1  
2 gene is induced by deleting at least a part of the LKB1 gene or a regulatory region thereof.

1           18. The cell of claim 16, wherein at least a part of the LKB1 gene or a regulatory  
2 region thereof in the genome of the cell is inserted between a pair of loxP sequences.

1           19. The cell of claim 17, wherein at least a part of the LKB1 gene or a regulatory  
2 region thereof in the genome of the cell is inserted between a pair of loxP sequences.

1           20. The cell of claim 18, wherein the cell comprises a Cre gene operably linked to  
2 a nucleotide sequence that directs expression of the Cre gene.

1           21. The cell of claim 19, wherein the cell comprises a Cre gene operably linked to  
2 a nucleotide sequence that directs expression of the Cre gene.

1           22. The cell of claim 16, wherein the cell is a rodent cell.

1           23. The cell of claim 18, wherein the cell is a rodent cell.

- 1        24. The cell of claim 20, wherein the cell is a rodent cell.
- 1        25. The cell of claim 22, wherein the cell is a mouse cell.
- 1        26. The cell of claim 23, wherein the cell is a mouse cell.
- 1        27. The cell of claim 24, wherein the cell is a mouse cell.
- 1        28. The cell of claim 16, wherein the cell is an embryonic stem cell.
- 1        29. The cell of claim 17, wherein the cell is an embryonic stem cell.
- 1        30. The cell of claim 18, wherein the cell is an embryonic stem cell.
- 1        31. The cell of claim 20, wherein the cell is an embryonic stem cell.
- 1        32. The cell of claim 22, wherein the cell is an embryonic stem cell.
- 1        33. The cell of claim 25, wherein the cell is an embryonic stem cell.
- 1        34. A transgenic, non-human mammalian cell, in which the expression of an LKB1 gene is inducibly suppressed and wherein the cell can be differentiated into an individual mammal.
- 1        35. The cell of claim 34, wherein the expression of the LKB1 gene is suppressed by a defect in at least a part of the LKB1 gene or a regulatory region thereof.
- 1        36. The cell of claim 16, wherein at least a part of the LKB1 gene or a regulatory region thereof in the genome of the cell is inserted between a pair of loxP sequences.
- 1        37. A transgenic, non-human mammalian cell, produced by the process of expressing a Cre gene in the cell of claim 18.
- 1        38. The cell of claim 34, wherein the cell is a rodent cell.
- 1        39. The cell of claim 35, wherein the cell is a rodent cell.

- 1           40. The cell of claim 36, wherein the cell is a rodent cell.
- 1           41. The cell of claim 37, wherein the cell is a rodent cell.
- 1           42. The cell of claim 38, wherein the rodent cell is a mouse cell.
- 1           43. The cell of claim 39, wherein the rodent cell is a mouse cell.
- 1           44. The cell of claim 40, wherein the rodent cell is a mouse cell.
- 1           45. The cell of claim 41, wherein the rodent cell is a mouse cell.
- 1           46. The cell of claim 34, wherein the cell is an embryonic stem cell.
- 1           47. The cell of claim 35, wherein the cell is an embryonic stem cell.
- 1           48. The cell of claim 36, wherein the cell is an embryonic stem cell.
- 1           49. The cell of claim 37, wherein the cell is an embryonic stem cell.
- 1           50. A method for creating a non-human mammal, comprising the following steps:  
2                 (a) introducing the non-human mammalian cell of claim 28 into an  
3                 embryo obtained from a pregnant non-human female; and  
4                 (b) transplanting the embryo into the uterus of a non-human  
5                 pseudopregnant female.
- 1           51. A method for creating a non-human mammal, comprising the following steps:  
2                 (a) introducing the non-human mammalian cell of claim 46 into an  
3                 embryo obtained from a non-human pregnant female; and  
4                 (b) transplanting the embryo into the uterus of a non-human  
5                 pseudopregnant female.

1           52. A method for creating a non-human mammal, comprising the following steps:  
2               (a) providing a fertilized egg or embryo from the non-human mammal of  
3               claim 3;  
4               (b) introducing the Cre gene into the fertilized egg or embryo;  
5               (c) expressing the Cre gene in the fertilized egg or embryo; and  
6               (d) transplanting the fertilized egg or embryo into the uterus of a non-  
7               human pseudopregnant female.

1           53. A method for creating a non-human mammal, comprising the steps of:  
2               introducing a Cre gene into the non-human mammal of claim 3; and expressing the Cre gene.

1           54. A method for creating a non-human mammal, comprising the steps of: mating  
2               the non-human mammal of claim 3 with a non-human mammal containing a Cre gene in its  
3               genome; and obtaining their offspring.